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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,752	07/13/2001	Noriyuki Kawano	211402US2	2054
22850	7590	08/25/2004		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER ORTIZ CRIADO, JORGE L	
			ART UNIT 2655	PAPER NUMBER

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/903,752

Applicant(s)

KAWANO, NORIYUKI

Examiner

Jorge L Ortiz-Criado

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) 8-21 and 32-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 22-31 and 42-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 8-21 and 32-41 remains withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 12/24/2003.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 22-31 and 42-48 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikegame Japanese Pat. No. JP410116431.

Regarding claim 1, Ikegame discloses an objective lens drive apparatus configured to be used in an optical pickup (See Abstract), comprising:

Art Unit: 2655

a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a focus coil (See detailed description [0028]; Figs. 12, ref # 3),

a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)

and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit (See detailed description [0028]; Figs. 11,12)

Regarding claims 2, 23 and 28, Ikegame discloses wherein the magnetic circuit comprises a plurality of magnets (See Detailed description [0028]; Figs. 11, 12, ref#8,9)

Regarding claims 3, 24 and 29, Ikegame discloses wherein the coil unit comprises a plurality of printed circuit boards, and the focus coil, the tracking coil and the tilt coil are separately disposed on the printed circuit boards (See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Regarding claim 4, Ikegame discloses wherein the coil unit comprises a plurality of first and second printed boards, and the focus coil and the tracking coil are disposed on the first printed board and the tilt coil is disposed on the second printed board (See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Art Unit: 2655

Regarding claim 5, Ikegame discloses wherein the coil unit comprises a plurality of first and second printed boards, and the focus coil and the tilt coil are mounted on the first printed board and the tracking coil is mounted on the second printed board (See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Regarding claim 6 and 31, Ikegame discloses wherein the coil unit comprises only one focus coil, and even number of the tracking coils and two of the tilt coils (See detailed description [0028]; Figs. 11,12) and wherein the magnet is magnetized in two polarities in a focus direction (See Detailed description [0033]; Figs. 11, 12, 13 ref# 8,9)

Regarding claims 7 and 26, Ikegame discloses wherein the coil unit comprises an even number of focus coils, only one tracking coil and two tilt coils (See detailed description [0028]; Figs. 11,12), and wherein the magnet is magnetized in two polarities in a tracking direction (See Detailed description [0033]; Figs. 11, 12, 13 ref# 8,9)

Regarding claim 22, Ikegame discloses an objective lens drive apparatus used in an optical pickup to detect the inclination of an optical disk to adjust the inclination of an objective lens in accordance with an inclination signal of the optical disk (See Abstract), comprising:

a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a focus coil (See detailed description [0028]; Figs. 12, ref # 3),

a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)

and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

Art Unit: 2655

wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit (See detailed description [0028]; Figs. 11,12)

wherein a focus servo is configured to be executed by supplying currents respectively to a plurality of the focus coils due to the sum of drive forces generated in the plurality of focus coils, and wherein an inclination adjustment of the objective lens is configured to be executed by generating moment around the center of gravity of a movable part due to the difference between the drive forces (See detailed description [0032]-[0037]; Fig. 13)

Regarding claims 25 and 30, Ikegame discloses wherein the coil unit comprises a printed circuit board, and the focus coil and the tracking coil are disposed on the printed circuit board (See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Regarding claim 27, Ikegame discloses an objective lens drive apparatus configured to be used in an optical pickup to detecting the inclination of an optical disk to adjust the inclination of an objective lens in accordance with an inclination signal of the optical disk (See Abstract), comprising:

a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a focus coil (See detailed description [0028]; Figs. 12, ref # 3),

a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)

and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit (See detailed description [0028]; Figs. 11,12)

wherein a tracking servo is configured to be executed by supplying currents respectively to a plurality of the focus coils due to the sum of drive forces generated in the plurality of focus coils, and wherein an inclination adjustment of the objective lens is configured to be executed by generating a moment around a center of gravity of a movable part due to a difference between the drive forces (See detailed description [0032]-[0037]; Fig. 13)

Regarding claim 42, Ikegame discloses an objective lens drive apparatus for use in an optical pickup (See Abstract), comprising:

a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9);

a coil unit comprising a focus coil (See detailed description [0028]; Figs. 12, ref # 3),

a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)

and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

and a lens configured to be adjusted in a focusing direction, a tracking direction, and a tilt direction by the magnetic circuit and coils is provided in a lens holder (See detailed description [0028]; Figs. 11,12,13)

Regarding claims 43-45, Ikegame discloses wherein one coil unit corresponds to one magnetic circuit (See detailed description [0028]; Figs.11, 12)

Regarding claims 46-47, Ikegame discloses wherein at most one coil unit is disposed within the magnetic gap (See detailed description [0028]; Figs.11, 12)

Regarding claim 48, Ikegame discloses wherein at most one coil unit is provided to correspond to the magnetic circuit (See detailed description [0028]; Figs.11, 12).

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. J.P. Publication No. 06-251405 to Murakami et al., which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil and a tilt coil wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit.

b. J.P. Publication No. 07-065397 to Murakami et al., which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil and a tilt coil wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit..

c. J.P. Publication No. 10-162394 to Ikegame, which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil and a tilt coil wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit.



- d. U.S. Patent No. 5,748,579 to Miyagi et, which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil wherein the focus coil, the tracking coil are disposed within a magnetic gap of the magnetic circuit and wherein the coil unit comprises a printed circuit board, and the focus coil, the tracking coil are disposed on the printed circuit boards
- e. U.S. Patent No. 6,084,834 to Kawano et al., which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil wherein the focus coil, the tracking coil are disposed within a magnetic gap of the magnetic circuit.
- f. U.S. Patent No. 5,555,228 to Izuka, which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in two polarities and a coil unit comprising a focus coil, a tracking coil wherein the focus coil and the tracking coil are disposed within a magnetic gap of the magnetic circuit.
- g. U.S. Patent No. 5,666,235 to Izuka, which discloses which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in two polarities and a coil unit comprising a focus coil, a tracking coil wherein the focus coil and the tracking coil are disposed within a magnetic gap of the magnetic circuit.

Art Unit: 2655

h. J.P. Publication No. 06-124467 to Owaki et al., which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil and a tracking coil.

i. U.S. Patent No. 6,449,229 to Kim et al., which discloses which discloses an objective lens drive apparatus configured to be used in an optical pickup, comprising: a magnetic circuit comprising a magnet configured to be magnetized in polarities and a coil unit comprising a focus coil, a tracking coil and a tilt coil wherein the focus coil, the tracking coil and the tilt coil are disposed within a magnetic gap of the magnetic circuit.

### *Response to Arguments*

5. Applicant's arguments filed 06/03/2004 have been fully considered but they are not persuasive.

Applicant's response to the rejection of claims 1,8,22,27,32 and 37 as unpatentable over Ikegame Tetsuo (further referred as Tetsuo)

Applicants argued that Tetsuo does not disclose or suggest "one coil unit".

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "**ONE coil unit**") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Art Unit: 2655

Nevertheless, Tetsuo discloses “one coil unit” comprising printed boards 23 and 24 which the tracking coil, a focusing coil and a tilt coil are formed and where the printed boards are fixed facing each other to be configured as a whole unit (See detailed description [0028]; Figs. 11,12).

The Examiners also wants to call the attention to the Applicant because in the specification the coil unit 3 is a unit, which comprises a required number of printed circuit board 31 and printed circuit board 32. What precisely, does the Applicant believe to correspond to “**one coil unit** or **a coil unit**”, as claimed? Applicant is reminded that the claims are interpreted in light of the specification; **limitations from the specification are not read into the claims**. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2655

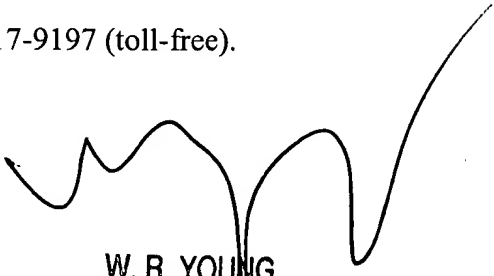
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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W. R. YOUNG  
PRIMARY EXAMINER